

Appl. No. 10/541,330  
Amdt. Dated June 28, 2007  
Reply to Office Action of March 28, 2007

••• R E M A R K S •••

The Official Action of March 28, 2007 has been thoroughly studied. Accordingly, the changes presented herein for the application, considered together with the following remarks, are believed to be sufficient to place the application into condition for allowance.

By the present amendment claim 1 has been amended to recite that the surfactant is a nonionic surfactant comprising a condensation product of polyethylene oxide (n= 10-90) and octyl phenol or nonyl phenol and a cationic.

This limitation regarding the surfactant being a polyethylene oxide based nonionic surfactant was originally recited in claim 7 which has been appropriately canceled.

Further, the limitations added to independent claim 1 can be found in the paragraph bridging pages 6 and 7 of applicants' original specification.

Independent claim 1 has further been amended to recite an "aqueous dispersion" to overcome the rejection of the claims under 35 U.S.C. §112, second paragraph.

Non-elected claims 10-14 have been canceled without prejudice or disclaimer. Applicants preserve their right to seek patent protection for the subject manner of canceled claims 10-14 by filing one or more divisional applications during the pendency of the present application.

Entry of the changes to the claims is respectfully requested.

Claims 1-6, 8, 9 and 15 are pending in this application.

Claims 2-10 and 15 were rejected under 35 U.S.C. §112, second paragraph. Under this

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rejection the Examiner noted that the recitation of "dispersion" lacked antecedent basis in the claims.

This rejection is believed to have been overcome by amending independent claim 1 to recite an "aqueous dispersion" as noted above.

Claims 1-6, 8-10 and 15 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 6,387,292 to Saito.

Claim 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Saito in view of U.S. Patent No. 6,180,740 to Fitzgerald.

For the reasons set below, it is submitted that all of the pending claims are allowable over the prior art of record.

Favorable reconsideration by the Examiner is earnestly solicited.

The Examiner has relied upon Saito as disclosing:

...a process of preparing an anti-soil composition in the form of an aqueous dispersion comprising a fluoroalkyl group-containing monomer with a polymerizable monomer free of fluorine atoms, and polypropylene glycol having an average molecular weight of not more than 1,000. Saito (col. 2, line 12-13) disclose a C<sub>12</sub>-fluoroalkyl group containing monomer. Saito (col. 3, lines 10-20) disclose a list of polymerizable monomers that include cyclohexyl (meth)acrylate, benzyl (meth)acrylate, stearyl (meth)acrylate, acrylamide. The disclosed stearyl (meth)acrylate of Saito (col. 3, line 10-20) generically includes stearyl acrylate in view of claim 2 of Saito, where a (meth)acrylate ester also includes an acrylate ester. Saito clearly indicate using a polymerization initiator (col. 4, line 67), and surfactants (col. 5, line 65 to col. 6, line 7). Saito (col. 4, example 1) disclose a formulation comprising at least 10 wt% of polyfluoroalkyl groups. Saito et al. (col. 6, line 8-12) describe the process of preparing an aqueous dispersion comprising water.

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The Examiner ha conceded that "Saito is silent on a process that uses a polyethylene oxide-based surfactant or a cationic surfactant."

Accordingly, the Examiner has relied upon Fitzgeral (at col. 6, line 18-48) as:

....clearly indicates that cationic, anionic, and non-ionic surfactants are equally valuable and compatible to each other in the formulation of an oil-repellent composition without any negative effect.

It is respectfully submitted that the actual teachings of Fitzgeral do not support the Examiner's reliance on Fitzgeral as indicating that "cationic, anionic, and non-ionic surfactants are equally valuable and compatible."

It is noted that at column 6, line 34, Fitzgeral teaches:

A preferred example of a *suitable* nonionic surfactant, if used in combination with the cationic surfactant, is an ethoxylated tridecyl alcohol surfactant such as MERPOL SE available from Stepan Company, Northfield, Ill.

It is further noted that at column 6, lines 29-24, Fitzgeral teaches:

Nonionic surfactants which are *suitable* for use herein include condensation products of ethylene oxide with 12-18 carbon atom fatty alcohols, 12-18 carbon fatty acids, alkyl phenols having 8-18 carbon atoms in the alkyl group, 12-18 carbon atom alkyl thiols and 12-18 carbon atom alkyl amines.

It is clear that Fitzgeral teaches that suitable nonionic surfactants include condensation products of ethylene oxide and that when a nonionic surfactant is to be used in combination with a

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cationic surfactant an "ethoxylated tridecyl alcohol surfactant such as MERPOL SE available from Stepan Company, Northfield, Ill" is to be used.

What Fitzgeral fails to teach (or render obvious) is the combination of a polyethylene oxide-based nonionic surfactant with a cationic surfactant which applicants claim.

Fitzgerald does state broadly that:

The cationic, anionic and nonionic surfactants used in this invention are any of those surfactants commonly used for preparing aqueous emulsions.

However, after this broad statement, Fitzgeral goes on to teach "suitable" surfactants, and "preferred" examples of "suitable" surfactants. So that the broader statement of "any" commonly used surfactants is very qualified for purposes of the teachings of Fitzgerald.

Moreover, the examples provided by Fitzgeral have to be taken into consideration in determining what Fitzgeral actually teaches.

In this regard, there are no examples in Fitzgeral that include the combination of a polyethylene oxide-based nonionic surfactant and a cationic surfactant.

Accordingly, Fitzgeral clearly fails to teach or render such a combination obvious within the meaning of 35 U.S.C. §103.

Finally it is noted that on page 14 of applicants' specification applicants have submitted that the present invention provides for an aqueous dispersion that has a distinguishing emulsion uniformity and stability, based upon the working examples that including the combination of a polyethylene oxide-based nonionic surfactant and a cationic surfactant.

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Based upon the above distinctions between the prior art as relied upon by the Examiner and the present invention, and the overall teachings of the prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §102 as anticipating applicants' claimed invention.

Moreover the Examiner cannot properly rely upon the prior art as required under 35 U.S.C. §103 as establishing a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon the prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

If upon consideration of the above, the Examiner should feel that there remain outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of

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time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,



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